

Notice of Allowability

Application No.

09/925,161

Examiner

Fred Ferris

Applicant(s)

PURCELL ET AL.

Art Unit

2128

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 18 May 2006.
2. ☒ The allowed claim(s) is/are 1-4, 7, 11-14, 16-28 and 30-37.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

Fred Ferris
FRED FERRIS
PRIMARY EXAMINER

DETAILED ACTION

1. *Claims 1-37 have been presented for examination based on applicants after final amendment filed 18 May 2006. Applicants have now cancelled claims 5, 6, 8-10, 15, and 29. Claims 1-4, 7, 11-14, 16-28, and 30-37 remain pending in this application and have now been allowed over the prior art of record.*

Response to Arguments

2. *Applicant's arguments filed 16 November 2005 have been fully considered and found to be persuasive.*

Regarding applicants response to 103(a) rejections: *The examiner withdraws the 103(a) rejection in view of applicants amendment to the claims and supporting arguments filed 18 May 2006.*

Allowable Subject Matter

3. *Claims 1-4, 7, 11-14, 16-28, and 30-37 are allowed over the prior art of record.*

The following is an examiner's statement of reasons for allowance:

Applicants are disclosing a method and apparatus for realizing an accumulator for add-accumulating arbitrary length floating point strings implemented using a layered tree structure for controlling flow of the accumulation data and a programmed structure for controlling the string length inputs and maintaining control of the layers within the tree structure. This has been disclosed in the prior art of record.

While these elements are individually disclosed in the prior art, the prior art of record does not meet the conditions as suggested in MPEP section 2132, namely:

*“The identical invention must be shown in as complete detail as is contained in the ... claim.” Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). The elements must be arranged as required by the claim, but this is not an **ipsissimis verbis** test, i.e., identity of terminology is not required. **In re Bond**, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990).”*

In particular, the prior art of record does not explicitly disclose the specific combination of apparatus elements and sequence of method steps relating to the left/right memory bank/source storing intermediate values and coupled to an adder and control device/selection mechanism including control fields for data flow by cycle type, routing field, and layer field as now required by amended independent claim 1, or the streaming by counting initial phase input and passing/delaying inputs based on phase counting and odd/even phase count available to be accumulated as now further required by amended independent claims 14 and 28. (See: specification pp. 19-29 Figs. 5, 6, for example)

The prior art of record discloses certain elements of the claimed invention as follows:

U.S. Patent 6,671,268 issued to Giacalone et al: teaches constructing an accumulator inclusive of a layered tree structure controlling flow of the accumulation data and a programmed structure for controlling the string length inputs and maintaining control of the layers within the tree structure. However, Giacalone does not explicitly

disclose the specific combination of apparatus elements and sequence of method steps relating to the left/right memory bank/source storing intermediate values and coupled to an adder and control device/selection mechanism including control fields for data flow by cycle type, routing field, and layer field as now required by amended independent claim 1, or the streaming by counting initial phase input and passing/delaying inputs based on phase counting and odd/even phase count available to be accumulated as now further required by amended independent claims 14 and 28

U.S. Patent Publication 2002/0039386 A1 issued to Han et al: teaches
constructing an accumulator inclusive of a layered tree structure and further teaches a tree structure that is configured to buffer (contain) the intermediate accumulation results. However, Han again does not explicitly disclose the specific combination of apparatus elements and sequence of method steps relating to the left/right memory bank/source storing intermediate values and coupled to an adder and control device/selection mechanism including control fields for data flow by cycle type, routing field, and layer field as now required by amended independent claim 1, or the streaming by counting initial phase input and passing/delaying inputs based on phase counting and odd/even phase count available to be accumulated as now further required by amended independent claims 14 and 28

The features noted above relating to the specific combination of system elements and sequence of method steps, as now recited in independent claims 1, 14, and 28 renders the claimed invention non-obvious over the prior art of record. Dependent

claims 2-4, 7, 11-13, 16-27 and 30-37 are deemed allowable as being dependent from independent claims 1, 14, and 28 respectively.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fred Ferris whose telephone number is 571-272-3778 and whose normal working hours are 8:30am to 5:00pm Monday to Friday. Any inquiry of a general nature relating to the status of this application should be directed to the group receptionist whose telephone number is 571-272-3700. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kamini Shah can be reached at 571-272-2279. The Official Fax Number is: (703) 872-9306

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